



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------------------------------------------------------------|-------------|----------------------|--------------------------------|------------------------|
| 10/594,733 | 04/05/2007 | Hiroshi Shibaoka | 21581-00371-US1 | 5777 |
| 23338 | 7590 | 03/17/2009 | | |
| DENNISON, SCHULTZ & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314 | | | EXAMINER STEELE, JENNIFER A | |
| | | | ART UNIT 1794 | PAPER NUMBER |
| | | | MAIL DATE 03/17/2009 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/594,733 | SHIBAOKA ET AL. | |
| | Examiner | Art Unit | |
| | JENNIFER STEELE | 1794 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/22/2006; 1/31/2007; 7/18/2007; 10/30/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 6 and 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "bag-like" is indefinite and fails to limit the structure of article claimed. It is unclear how the structure is like or unlike a bag and therefore indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1, 3-6 rejected under 35 U.S.C. 103(a) as being unpatentable over**

Fukunishi (JP 2005-048298). The current application claim 1 describes: A polyester fabric having a total cover factor of not lower than 1500 and a mass per unit area of not higher than 45 gsm,

- Wherein said polyester fabric is composed of polyester multifilament A yarns having a total fineness of not higher than 25 dtex and a single yarn fineness of not higher than 2.0 dtex

Art Unit: 1794

- And multifilament B yarns having a total fineness of not lower than 35 dtex, yarns having a total fineness of not lower than 35 dtex,
- Wherein the arrangements of the respective yarns in the warp and weft directions are such that the yarn constitution ratio "B yarn/A yarn" is $\frac{1}{4}$ to $\frac{1}{20}$ (number of yarns to number of yarns ratio) and
- Wherein the A yarn to B yarn pitches are not longer than 7mm.

Fukunishi teaches a woven fabric and method for producing the same (Title).

Fukunishi teaches a woven fabric that is thin, light, has low air permeability and high tear strength and is suitable for use as ticking covers of down jackets.

Fukunishi teaches cover factors of 1600 to 2000 (claim 4).

Fukunishi teaches unit weight of the fabric is preferred to be below 45 gsm and 40 gsm [0010].

Fukunishi teaches polyester multifilament are known to be used in these fabrics [0003].

Fukunishi teaches yarn filaments of single yarn fineness of 1.2 dtex and below and multifilament is 30 dtex or less. Applicant claims yarn A of total fineness not higher than 25 dtex which is substantially the same as 30 dtex and it would have been obvious to select total fineness of 25 dtex based on the disclosure of Fukunishi.

As to the B yarn claimed, Fukunishi teaches a rip stop weave wherein a secondary yarn is employed to satisfy lightness and tear strength. Fukunishi teaches the rip stop yarn is of larger fineness. Fukunishi is silent with respect to the size of the rip stop yarn. A larger fineness would be larger than 30 dtex and would encompass the claimed range

of 35 dtex. Fukunishi presents a finding that one of ordinary skill in the art could have employed a B-yarn of greater than 35 dtex and the results of the combination would have been predictable.

Fukunishi teaches the ratio of primary yarns (equated with A yarns) to rip stop yarns (equated with B yarns) in examples 1 wherein the A yarns have a density of 198 warp density/2.54 cm and the rip stop, B yarns, have a density of 1 every 0.64 mm [Table 1]. [0037]. Calculating the ratio of A to B yarns results in a ratio of 20% or 1/5 which is in the range of 1/4 to 1/20. $198/25.4 \text{ mm} = (7.8) \text{ A-yarns/mm}$; every 0.64 mm there is a B-yarn which yields (5) A-yarns for every B-yarn.

Fukunishi teaches that the rip stop width is 0.64 to 0.69 in example 1 [Table 1]. This is in the claimed range of not longer than 7 mm. Fukunishi teaches it is desirable to have the lattice design of the rip stop yarn be less than 5 mm and less than 1.5 mm [0025].

As to claim 3, Fukunishi teaches the fabric is calendered [0026] and has a tear strength of 10-50 N [claim 1] and an air permeability of below $1.5 \text{ cm}^3/\text{cm}^2$. As disclosed Fukunishi teaches substantially the same structure and materials and it is presumed the fabric properties of Fukunishi would be inherently the same as the claimed invention.

As to claims 4-6, the claims are drawn to statements of use and do not distinguish the application from the prior art. However Fukunishi teaches a fabric useful for uses such as down wear and jackets, parachutes, sleeping bags [0011].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 2 and 7-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunishi (JP 2005-048298) in view of Corner et al (US 2006/0084337).

Fukunishi differs from the current application and does not teach a paralleled yarn rip stop yarn which is the equivalent of applicant's B-yarn. Corner teaches blended outer shell fabric for jackets and garments [0001]. Corner teaches woven fabric that are lightweight and employ a rip stop weave [0014]. Corner teaches the rip stop yarns have a construction similar to the body yarns but are provided in pairs that are woven through the fabric as show in Corner's Fig. 2 below. Corner teaches a paralleled secondary, B yarn.

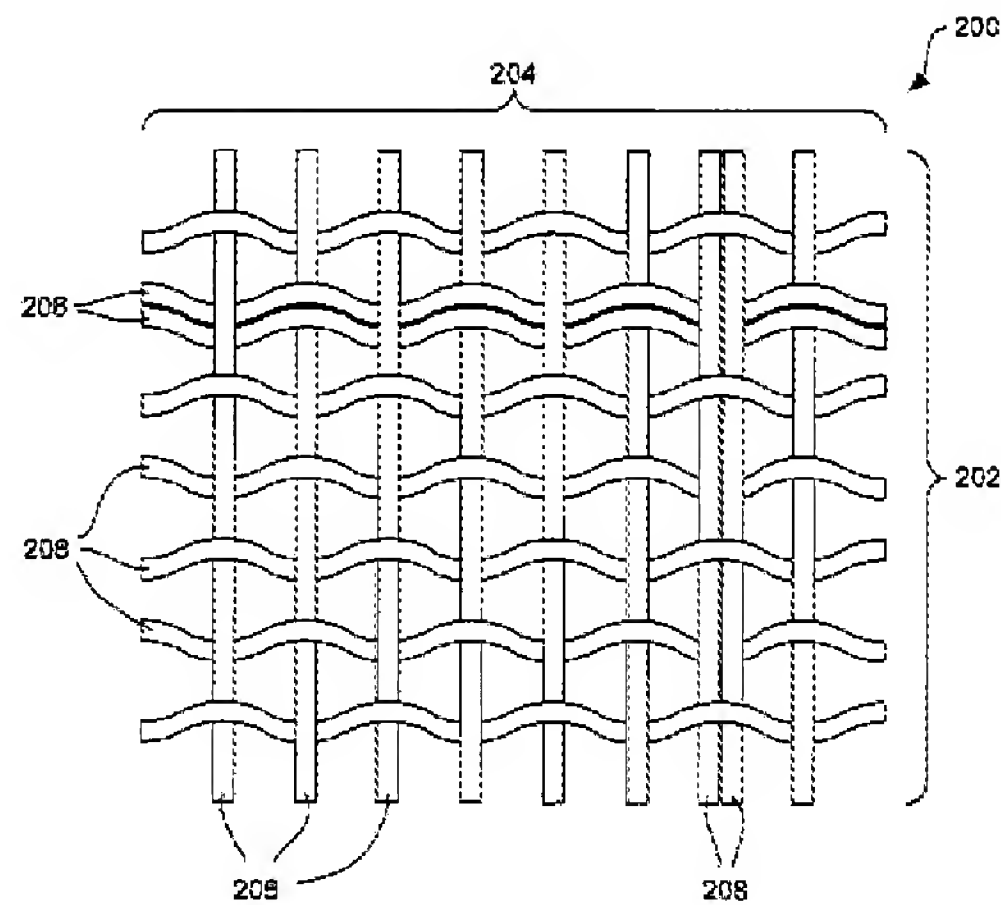


FIG. 2

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a rip stop woven fabric with a rip stop yarn that is a paralleled yarn motivated to produce a lightweight fabric for outerwear that also has strength provided by the rip stop yarn.

As to claim 7, Fukunishi teaches the fabric is calendered [0026] and has a tear strength of 10-50 N [claim 1] and an air permeability of below 1.5 cm³/cm². As disclosed Fukunishi teaches substantially the same structure and materials and it is presumed the fabric properties of Fukunishi would be inherently the same as the claimed invention.

As to claims 8-10, the claims are drawn to statements of use and do not distinguish the application from the prior art. However Fukunishi teaches a fabric useful for uses such as down wear and jackets, parachutes, sleeping bags [0011].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 1794

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794

3/9/2009